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KANG, INSUN

ART UNIT	PAPER NUMBER
2193	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/764,690	RANDOW, ANDREAS	
	Examiner	Art Unit	
	Insun Kang	2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *1/26/2004, 4/23/2004, and 7/16/2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 July 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responding to application papers filed on 1/26/2004, 4/23/2004, and 7/16/2004.

2. Claims 1-20 are pending in the application.

Claim Objections

3. Claims 1-19 are objected to because of the following informalities: Per claim 1, the second (d) needs to be changed to (e). In line 4, it appears that "represent" needs to be corrected to "represent." As per claims 2-19, these claims are objected for dependency on the above objected parent claim 1. Appropriate correction is required.

Further, while there is no set statutory form for claims, the present Office practice is to insist that each claim must be the object of a sentence starting with "I (or we) claim," "The invention claimed is" (or the equivalent). Such a starting sentence is missing.

Specification

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Per claim 1, in line 5, it is unclear whether the configuration is actually performed. It is interpreted as: that can be collectively configured.

As per claims 2-19, these claims are rejected for dependency on the above rejected parent claim 1.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 1-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-20 are non-statutory because they are directed to a computer software without recitation of a computer or a computer-storage medium embodying the claimed computer program. The claimed program is disembodied arrangement without creating any functional interrelationship, either as part of the stored data or as part of the computing processes performed by the computer ("acts") or the computer storage medium so as to enable the computer to perform the claimed program as recited. Therefore, the claims are non-statutory.

The following link on the World Wide Web is for the United States Patent And Trademark Office (USPTO) policy on 35 U.S.C. §101. The following link on the World Wide Web is for the United States Patent And Trademark Office (USPTO) policy on 35 U.S.C. §101. <http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf>

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1, 2, 5-7, and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodosky et al. (i.e. US Patent 5,291,587) hereafter Kodosky in view of Hyperception ("Building DSP Applications via Graphical Design," 2001).

Per claim 1:

Kodosky discloses:

- means for creating on a windows-based host application desktop a task container panel for receiving one or more virtual panels that each represent a device function and that collectively may be configured to implement a specific device task (i.e. col. 7 lines 61-65; col. 8 lines 1-15 and 29-47).

Kodosky does not explicitly teach that the task container panel is DSP specific. However, Hyperception teaches that such a graphical design tool for DSP was known in the pertinent art, at the time applicant's invention was made, to provide a graphical DSP programming environment for users (i.e. "DSP object code from a graphically constructed, user-created algorithm," page 1, paragraph 2; last paragraph). It would have been obvious for one having ordinary skill in the art to modify Kodosky's disclosed graphical system to incorporate

the teachings of Hyperception. The modification would be obvious because one having ordinary skill in the art would be motivated to easily create DSP code in a graphical environment (i.e. page 1, last paragraph) as suggested by Hyperception.

Kodosky further discloses:

- means for creating virtual panels for placement in a said DSP task container whereby each of said virtual panels represents a selected DSP device function and has a generic property page comprising means for configuring selected parameters of said selected DSP device function (i.e. col. 9 lines 9-21; Fig. 5; col. 8 lines 51-55);

- means for creating and saving a file comprising a listing of descriptors that includes, for each virtual panel within a said DSP task container, descriptors of each DSP device function property page configuration selection made by a user in order to define a DSP device task implementation (i.e. col. 8 lines 39-42);

- translation means for translating said file into an executable DSP operating system file, comprising DSP-executable modules selected from libraries of pre-compiled binary code for executing DSP functions (i.e. col. 36 lines 50-51)

- means for loading said executable DSP operating system file onto a target DSP device (i.e. col. 3 lines 40-56).

Per claim 2:

Kodosky further discloses: said means for creating a plurality of virtual panels comprises browser means for browsing a catalog of available DSP function contained in a stored DSP operating system (i.e. col. 8 lines 51-55).

Per claim 5:

Kodosky further discloses: means for creating, whenever any of said virtual panels is opened, a generic property page comprising graphical means including editor tools for enabling a user to set up selected properties of the DSP function represented by the virtual panel thus opened (i.e. col. 8 lines 1-14, 29-42; see Fig. 22).

Per claim 6:

Kodosky further discloses: means for creating, and associating with each of said virtual panels, a file adapted to retrievably store in memory on the host application the data representing the property page values and parameters selected by a user in order to configure the DSP function associated with a said virtual panel (i.e. col. 8 lines 43-45).

Per claim 7:

Kodosky further discloses: a plurality of DSP task container panels each adapted to receive at least one DSP function panel and to implement a specific DSP task (i.e. Fig. 5).

Per claim 14:

Hyperception further discloses: means for creating a plurality of task-oriented, custom DSP operating systems for a plurality of different DSP hardware devices, each of said

custom DSP operating systems comprising DSP-executable binaries representing a set of DSP functions configured by a user (i.e. 2.5 Direct DSP Board Support section).

Per claim 15:

Hyperception further discloses:

- means for loading a said custom DSP operating system onto a selected one of a plurality of target DSP devices (i.e. section 2.1 Simulation/Modeling on PC, " Block Diagram product contains a library of functions for wide variety of applications).

Per claim 16:

Kodosky further discloses: said windows-based host application is a test and measurement application (i.e. col. 16 lines 59-67).

Per claim 17:

Kodosky further discloses: a DSP device panel adapted to receive and to contain a plurality of said DSP task container panels, whereby said DSP device panel may be configured to implement a plurality of DSP tasks all intended for implementation on a specific DSP device (i.e. col. 8 lines 51-55).

Per claim 18:

Kodosky further discloses: means whereby within a said DSP device panel a DSP task

may be associated with at least one other DSP task (i.e. col. 8 lines 51-55).

Per claim 19:

Hyerception further discloses:

- said DSP device panel serves as host for device global data including global variables (i.e. "the ability to quickly modify DSP designs and change parameters on-the-fly," section 5.5 Research).

Per claim 20, it is another graphical environment version of claim 1, respectively, and is rejected for the same reasons set forth in connection with the rejection of claim 1 above.

10. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodosky et al. (i.e. US Patent 5,291,587) hereafter Kodosky, in view of Hyperception ("Hypersignal Block Diagram," Hyperception, pages 1-8, 1/1999), and further in view of Cesario et al. ("XML-based Meta-model for the Design of Multiprocessor Embedded Systems," IEEE, 2000) hereafter Cesario.

Per claim 3:

Kodosky and Hyperception do not explicitly teach that said catalog contains descriptions of available DSP functions set forth in eXtensible Markup Language (XML). However, Cesario teaches that using an XML as a descriptor was known in the pertinent art, at the time applicant's invention was made, to provide extensibility (i.e. page 78, 4.1. XML-based model section, "the

description of other tool-specific languages and libraries"). It would have been obvious for one having ordinary skill in the art to modify the system of Kodosky and Hyperception to incorporate the teachings of Cesario. The modification would be obvious because one having ordinary skill in the art would be motivated to provide users XML-based descriptions of available DSP functions for extensibility.

Per claim 4:

Kodosky further discloses:

wherein said catalog comprises, for at least one target DSP device, an XML-based description of each functional component of said at least one target DSP device (i.e. col. 8 lines 51-55).

11. Claims 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kodosky et al. (i.e. US Patent 5,291,587) hereafter Kodosky, in view of Hyperception ("Hypersignal Block Diagram," Hyperception, pages 1-8, 1/1999), and further in view of Andersson et al. (US patent 6,694,513) hereafter Andersson.

Per claim 8:

Kodosky and Hyperception do not explicitly teach that said file comprising a listing of descriptors of virtual panel property page configuration selections is set forth in aspect interaction language and comprises aspect interaction language descriptors of all configured properties of all DSP function panels within a said container panel. However, Andersson teaches

that using an aspect-oriented language as a descriptor was known in the pertinent art, at the time applicant's invention was made, to provide separate of architectural concerns (i.e. col. 3 lines 59-67). It would have been obvious for one having ordinary skill in the art to modify the system of Kodosky and Hyperception to incorporate the teachings of Andersson. The modification would be obvious because one having ordinary skill in the art would be motivated to provide modularity by separation of concerns.

Per claim 9:

Andersson further discloses: wherein said aspect interaction language file of descriptors comprises sufficient DSP function property configuration descriptors to define a programmed DSP task (i.e. col. 3 lines 59-67).

Per claim 10:

Kodosky further discloses: wherein said descriptors include data representing DSP task process identification, used pipes and their variables, needed resources, used function objects and properties of said objects, and interconnections between function objects (i.e. col. 8 lines 43-45).

Per claim 11:

Kodosky further discloses: utility means for parsing said aspect interaction file and translating its contents into DSP-readable form (i.e. col. 36 lines 50-51).

Per claim 12:

Kodosky further discloses: libraries of DSP-executable binaries stored as function panels, and utility means for employing said libraries to configure said DSP-readable form of said file into parameters of binary DSP modules (i.e. col. 36 lines 50-51).

Per claim 13:

Kodoski further discloses: said libraries of DSP-executable binaries comprises pre-compiled binary modules sufficient to configure all user-programmable functions of a plurality of different DSP hardware devices (i.e. page 4, see Large Function library section; col. 8 lines 51-55).

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Insun Kang whose telephone number is 571-272-3724. The examiner can normally be reached on M-R 6:30-5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MENG AI AN can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

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